

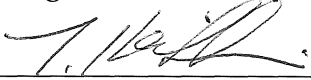
Internal Monitoring Report

Policy: EL-2C Financial Planning/Budgeting

Frequency: Twice a year (May and August)

Date: May 28, 2013

I certify that the following information is true.

Signed  _____, General Manager

Policy Language:

The General Manager shall not cause or allow financial planning to deviate materially from the board's Outcomes priorities, risk financial jeopardy or fail to be derived from a multiyear plan.

Accordingly, the General Manager shall not cause or allow conditions, procedures or decisions that:

1. Allow budgeting which would risk incurring those situations or conditions described as unacceptable in the Financial Condition and Activities policy (EL-2D).
2. Fail to provide the full amount established by the board according to the Agenda Planning to Achieve Board Outputs policy (BP-2C).

General Manager's interpretation and its justification:

This Executive Limitations policy recognizes that financial planning and sound budgeting are necessary for the achievement of the board's Outcomes priorities and in order to avoid financial jeopardy. Sound budgeting is also necessary for the board to invest resources in improving its own governance capacity. The Utility has the responsibility to establish, manage and plan for the necessary water rates and debt to fund all expenditures to meet identified capital and operational requirements, and to budget accordingly.

The board has enumerated in this policy two specific areas: budgeting in accordance with policy EL-2D, and providing funds for board education and training as described in policy BP-2C.

Data directly addressing the General Manager's interpretation:

The 2014 Water Utility Capital Budget and Capital Improvement Plan is aligned materially with the board's Outcomes priorities, including the Global Outcomes Policy and the Water Quantity, Water Quality, and Reliability policies. In addition, it projects capital expenses through year 2020. A copy of this document is attached.

The Utility has implemented and uses a financial planning model to evaluate and project funding required to finance infrastructure and operating needs. Through the use of this model, bond sales are planned and rate increases are developed.

The 2014 Operating Budget is a master agenda item for the August board meeting. It will include the amount of \$1,500.00 as approved by the board at its April 23, 2013 meeting, for board governance capacity as described in Board Process policies BP-2C and BP-2J.

I report compliance.

Attachment:

2014 Capital Budget and Capital Improvement Plan



Madison Water Utility - 2014 Capital Budget
2014-2020 Capital Improvement Budget

DRAFT

Updated: **May 20, 2013**

| | | | | <i>Annual Totals</i> | \$ 20,276,000 | \$ 11,430,000 | \$ 26,926,000 | \$ 27,322,000 | \$ 25,092,000 | \$ 25,473,000 | \$ 28,811,000 | \$ 29,235,000 | \$ 31,868,600 | | | |
|------|---|--------------------------|---------------------------|--|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---|--|--|
| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | |
| 1 | Arbor Hills Supplemental Fire Flow Supply - BPS 118 | | 2011 | | | | | | | | | | | | | |
| 2 | Booster Pump Station 118 was constructed and put into service in 2012. The last phase of the project, Phase 4 of the Cannonball Pipeline will be constructed in 2014. | | | Cannonball Pipeline | | | 642,000 | | | | | | | | | |
| 3 | | | | Project Total | - | - | 642,000 | - | - | - | - | - | - | - | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | Unit Well No. 7 - Fe and Mn Filtration | | 2013 | | | | | | | | | | | | | |
| 6 | The East Side Water Supply project verified the need for a filter at Well 7. The public engagement process is proceeding and the project has been moved up to be constructed in 2013 and fully operational in 2014. Construction of a filter at Well 7 will address the water quality issues that exist due to iron and manganese levels that exceed or approach the EPA secondary standard. A filter would significantly reduce the iron and manganese levels in the water pumped from the facility into the system. Filtering the water and removing the iron and manganese will reduce the likelihood of customers experiencing colored water due to water pumped from Well 7 and will allow the Utility to increase the use of the well. The new facility will require additional property. | | | Public Participation | | | | | | | | | | | | |
| 7 | | | | UW 7 - Filter Design | 426,000 | 50,000 | | | | | | | | | | |
| 8 | | | | Property Purchase | | | | | | | | | | | | |
| 9 | | | | Construction Admin Services | 319,000 | 250,000 | | | | | | | | | | |
| 10 | | | | Construction of Unit Well No. 7 Fe and Mn Filter | 5,320,000 | 5,000,000 | | | | | | | | | | |
| 11 | | | | Hydraulic Improvement Pipelines | | | | | | | | 981,000 | 673,000 | | | |
| 12 | Project Total | 6,065,000 | 5,300,000 | - | - | 981,000 | 673,000 | - | - | - | - | - | - | | | |
| 13 | | | | | | | | | | | | | | | | |
| 14 | Booster Pump Station #106 Reconstruction | | 2013 | | | | | | | | | | | | | |
| 15 | Rebuilding the outdated Booster Pump Station 106 is scheduled to start construction in 2013 and be finished and in service in early 2014. Booster Pump Station 106 is a critical link between Pressure Zones 6 and 7 and allows water to be moved between zones. The facility is the oldest pump station in the system and has deteriorated to the point that it is difficult to maintain. It is also necessary to bring the pump station up to current safety standards and codes, to improve reliability of operation to the station, and to improve access and employee safety. With the pump station upgrade some pipeline replacement will be necessary to increase hydraulic capacity. Improvement to this facility provides significant operational flexibility to the Utility. | | | Public Engagement | | | | | | | | | | | | |
| 16 | | | | Consultant Design contract | | | | | | | | | | | | |
| 17 | | | | Construction of Pump Station | 1,493,000 | 1,050,000 | | | | | | | | | | |
| 18 | | | | Construction Contract Administration | 45,000 | 32,000 | | | | | | | | | | |
| 19 | | | | Pipeline Improvements | | | | | | 616,000 | 635,000 | 654,000 | | | | |
| 20 | Project Total | 1,538,000 | 1,082,000 | 616,000 | 635,000 | 654,000 | - | - | - | - | - | - | | | | |
| 21 | | | | | | | | | | | | | | | | |
| 22 | Paterson Street Building Remodel and Upgrade | | 2014 | | | | | | | | | | | | | |
| 23 | Rebuilding the Utility's Operations Center at Paterson Street is scheduled to start construction in 2014 and be finished and in service in early 2015. The existing facility is outdated and cramped and in need of replacement. The vehicle maintenance area is too small for modern equipment and compromises employee safety. Building air quality and ventilation does not meet modern standards. The office space, locker rooms and other functional storage spaces do not meet current needs. The project also includes the construction of a materials handling building that will free up space in the vehicle storage building and improve efficiency during winter operations. | | | Public Participation | 40,000 | 30,000 | | | | | | | | | | |
| 24 | | | | Architectural Services/Review | 468,000 | 351,000 | | | | | | | | | | |
| 25 | | | | Materials Storage Building | | | | | | | | | | | | |
| 26 | | | | Furnishings and Equipment | | | | | | | 400,000 | | | | | |
| 27 | | | | Construction Admin | | | | | | 308,000 | | | | | | |
| 28 | | | | Fleet Maintenance and Office Building Construction | | | | | | 6,158,000 | | | | | | |
| 29 | Project Total | 508,000 | 381,000 | 6,466,000 | 400,000 | - | - | - | - | - | - | - | | | | |
| 30 | | | | | | | | | | | | | | | | |
| 31 | Lakeview Reservoir Reconstruction (Res 113) | | 2014 | | | | | | | | | | | | | |
| 32 | The schedule for the construction of the Lakeview Reservoir has been pushed to 2014 with the reservoir on line in 2015. Reconstructing the Lakeview Reservoir will replace an aging storage tank and provide much needed additional gravity fed water storage in Zone 6E on the north side of the City. Improvements to the existing pump station feeding Pressure Zone 5 is also included in this project. This project is justified in the Water Master Plan and would improve fire fighting capacity and reliability within Pressure Zone 5. | | | Public Engagement | 50,000 | 35,000 | | | | | | | | | | |
| 33 | | | | Consultant Design contract | 241,000 | 125,000 | | | | | | | | | | |
| 34 | | | | Construction Services | | | | | 134,000 | | | | | | | |
| 35 | | | | Construct Two Zone Lakeview Reservoir | | | | | 2,680,000 | | | | | | | |
| 36 | | | | System Hydraulic Water Main Improvements | | | | | | 1,015,000 | | | | | | |
| 37 | | | | Upgrade Booster Pumps @ Res. 113 | | | | | | 560,000 | | | | | | |
| 38 | Water Main Improvements @ Res 113 | | | | | | 381,000 | | | | | | | | | |
| 39 | Project Total | 291,000 | 160,000 | 2,814,000 | 1,956,000 | - | - | - | - | - | - | - | | | | |
| 40 | | | | | | | | | | | | | | | | |



Madison Water Utility - 2014 Capital Budget
2014-2020 Capital Improvement Budget

DRAFT

Updated: **May 20, 2013**

| | | | | <i>Annual Totals</i> | | \$ 20,276,000 | \$ 11,430,000 | \$ 26,926,000 | \$ 27,322,000 | \$ 25,092,000 | \$ 25,473,000 | \$ 28,811,000 | \$ 29,235,000 | \$ 31,868,600 |
|------|--|--------------------------|---------------------------|--|------------------|----------------|---------------|----------------------|------------------|----------------|---------------|------------------|----------------|----------------|
| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | |
| 41 | UW 29 Filter Capacity Expansion | | 2014 | | | | | | | | | | | |
| 42 | The filter system at Unit Well 29 was constructed with a capacity of 1100 gpm due to a concern with contaminants under the Sycamore Landfill. A sentry well was installed between the landfill and the well to monitor water quality. At this time based on pumping and water quality data there is no indication of a problem with the Sycamore Landfill with regard to Well 29 and the capacity of the filtration system will be increased to 2200 gpm. This will provide the Utility with improved flexibility and supply capacity on the east side of Pressure Zone 6. | | | Consultant Design contract | 30,000 | 30,000 | | | | | | | | |
| 43 | | | | Increase Filter Capacity | 400,000 | 400,000 | | | | | | | | |
| 44 | | | | Construction Contract Administration | 16,000 | 16,000 | | | | | | | | |
| 45 | | | | Project Total | 446,000 | 446,000 | - | - | - | - | - | - | - | - |
| 46 | | | | | | | | | | | | | | |
| 47 | Zone 4 Fire Flow Supply Augmentation - Well 31 | | 2015 | | | | | | | | | | | |
| 48 | Two test wells were constructed in 2012 and the production well is scheduled to be drilled in 2013. Unit Well 31 is scheduled to be designed and construction to start in late 2013 and be finished and in service in 2014. The Zone 4 Fire Flow Supply Augmentation project will correct a significant system deficiency identified by the Water Master Plan in the southeast corner of the system within Pressure Zone 4. Due to significant expansion over the years to the south and east, the hydraulics of the system will not adequately serve this area for fire flow supply or system reliability and redundancy. There is also significant development pressure in the southeast and the proposed new well will support further development of the area. Adding a second source of supply to the area will improve fire flow capacity and bring the water system level of service for the area up to Utility standards. | | | Public Engagement | 25,000 | 5,000 | | | | | | | | |
| 49 | | | | Production Well and Development | 638,000 | 50,000 | | | | | | | | |
| 50 | | | | Consultant Design contract for design of Unit Well, Reservoir, Pump Station, and Pipelines | 385,000 | 360,000 | | | | | | | | |
| 51 | | | | Construct Unit Well & Fe and Mn Filter | | | 5,107,000 | | | | | | | |
| 52 | | | | Consultant Construction Administration | 241,000 | | 255,000 | | | | | | | |
| 53 | Hydraulic Improvement Pipelines | | | | | | | 654,000 | 673,000 | | | | | |
| 54 | | | | | | | | Project Total | 1,289,000 | 415,000 | - | 5,362,000 | 654,000 | 673,000 |
| 55 | | | | | | | | | | | | | | |
| 56 | Unit Well 12 Conversion to a Two Zone Well | | 2015 | | | | | | | | | | | |
| 57 | The 2006 Water Master Plan recommended that Well 12 be converted to a two zone well. This conversion will provide operational flexibility and reliability to the west side supply system. Pumps and a pressure reducing valve will be added to the Well 12 facility to move water from Pressure Zone 7 to Pressure Zone 8 or from Pressure Zone 8 to Pressure Zone 7. | | | Consultant Design Contract | | | 48,000 | | | | | | | |
| 58 | | | | Construction Services | | | 30,000 | | | | | | | |
| 59 | | | | Construction | | | 600,000 | | | | | | | |
| 60 | | | | Water Main Improvements | | | 361,000 | | | | | | | |
| 61 | Project Total | - | - | 48,000 | 991,000 | - | - | - | - | - | - | | | |
| 62 | | | | | | | | | | | | | | |
| 63 | Iron and Manganese Filter at Well 19 | | 2015 | | | | | | | | | | | |
| 64 | Construction of an Iron and Manganese Filter at Well 19 will address the water quality in the Well 19 service area due to elevated levels of iron and manganese. Accumulation of iron and manganese solids in the system results in a need for additional flushing to minimize the risk of colored water reaching customers. Removing the iron and manganese from the water using a filter would improve finished water quality and reduce the risk of colored water in the Well 19 service area. The project will benefit existing customers in the west campus area. The budget anticipates construction of a filter in 2015 with the facility in full operation in 2016 following a significant public participation process and evaluation. | | | Public Participation | | | 60,000 | | | | | | | |
| 65 | | | | UW 19 - Filter Design Documents | | | 284,000 | | | | | | | |
| 66 | | | | Property Purchase | | | - | | | | | | | |
| 67 | | | | Construction Admin Services | | | 190,000 | | | | | | | |
| 68 | | | | Well 19 Fe and Mn Filter Construction | | | 3,160,000 | | | | | | | |
| 69 | Project Total | - | - | 344,000 | 3,350,000 | - | - | - | - | - | - | | | |
| 70 | | | | | | | | | | | | | | |



Madison Water Utility - 2014 Capital Budget
2014-2020 Capital Improvement Budget

DRAFT

Updated: **May 20, 2013**

| | | | | <i>Annual Totals</i> | | \$ 20,276,000 | \$ 11,430,000 | \$ 26,926,000 | \$ 27,322,000 | \$ 25,092,000 | \$ 25,473,000 | \$ 28,811,000 | \$ 29,235,000 | \$ 31,868,600 |
|------|--|--------------------------|---------------------------|--|------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | |
| 71 | Zone 7 & 8 Supplemental Supply - Whitney Way | | 2016 | | | | | | | | | | | |
| 72 | The 2006 Water Master Plan recommends an additional well to serve Pressure Zones 7 and 8 to improve operational flexibility and system reliability. Adding a well to the area with the ability to pump water to either Zones 7 or 8 will provide additional water supply capacity the area and improve system reliability and redundancy. This facility will provide significant operational flexibility to the Utility within this portion of the system. It is expected that a significant public participation process will be used to site a well and identify water quality issues and system operational needs. Currently the project is scheduled for construction in 2016 and will be fully operational in 2017. | | | Public Engagement | | | 25,000 | | | | | | | |
| 73 | | | | Site Selection and Property Purchase | | | 264,000 | | | | | | | |
| 74 | | | | Drill test well | | | 108,000 | | | | | | | |
| 75 | | | | Drill production Well | | | | 677,000 | | | | | | |
| 76 | | | | Consultant Contract-Well Siting & Design | | | | 445,000 | | | | | | |
| 77 | | | | Construction of Filter, Reservoir and Pump Station | | | | | 5,560,000 | | | | | |
| 78 | | | | Consultant Contract Administration | | | | | 334,000 | | | | | |
| 79 | | | | Pipeline Improvements | | | | | | | 893,000 | | | |
| 80 | | | | Project Total | | - | - | 397,000 | 1,122,000 | 5,894,000 | 893,000 | - | - | - |
| 81 | | | | | | | | | | | | | | |
| 82 | Booster Pump Station 109 (Spaanem Ave) | | 2016 | | | | | | | | | | | |
| 83 | Booster Pump Station 109 will provide the east side operational functionality and improve reliability to the water supply system. The pump station will move water from Pressure Zone 4 to Pressure Zone 6E and a pressure reducing valve station will allow water to move from Pressure Zone 6 E to Pressure Zone 4. | | | Public Engagement | | | | 50,000 | | | | | | |
| 84 | | | | Site Selection and Property Purchase | | | | 168,000 | | | | | | |
| 85 | | | | Consultant Design contract | | | | 102,000 | | | | | | |
| 86 | | | | Construction Services | | | | | 77,000 | | | | | |
| 87 | | | | Construct BPS 109 | | | | | 1,280,000 | | | | | |
| 88 | | | | Water Main Improvements | | | | | | | 765,000 | 657,000 | | |
| 89 | | | Project Total | | - | - | - | 320,000 | 1,357,000 | 765,000 | 657,000 | - | - | |
| 90 | | | | | | | | | | | | | | |
| 91 | Iron and Manganese Filter at Well 30 | | 2017 | | | | | | | | | | | |
| 92 | Iron and manganese concentrations at Well 30 exceed Utility water quality standards and guidelines. Construction of an Iron and Manganese Filter at Well 30 will address the water quality issues and risk of colored water events and customer complaints in the Well 30 service area. Annual system flushing is required in the Well 30 service area to minimize the risk of colored water events due to the accumulation of iron and manganese solids in the system. A filter would improve finished water quality and reduce the need for annual flushing in the Well 30 service area. The budget anticipates construction of a filter in 2018 following a significant public participation process and evaluation. | | | Public Participation | | | | | 60,000 | | | | | |
| 93 | | | | UW 30 - Filter Design Documents | | | | | 320,000 | | | | | |
| 94 | | | | Property Purchase | | | | | | - | | | | |
| 95 | | | | Construction Admin Services | | | | | | 214,000 | | | | |
| 96 | | | | Well 30 Fe and Mn Filter Construction | | | | | | 3,560,000 | | | | |
| 97 | | | Project Total | | - | - | - | - | 380,000 | 3,774,000 | - | - | - | |
| 98 | | | | | | | | | | | | | | |
| 99 | Booster Pump Station 129 Reconstruction | | 2017 | | | | | | | | | | | |
| 100 | Construction of a new and upgraded booster pump station 129 is scheduled for 2017. This project will replace the temporary pump station constructed on the Well 29 site in 1990. Pump Station 129 will continue to transfer water from Zone 6E to Zone 3 and back again through a PRV. This operation will provide supply and fire flow capability to the far east side of the system. It will benefit customers through gained reliability and flexibility of operations. | | | Public Engagement | | | | 56,000 | | | | | | |
| 101 | | | | Design | | | | | 121,000 | | | | | |
| 102 | | | | Construction Services | | | | | | 91,000 | | | | |
| 103 | | | | Water Main Improvements | | | | | | | | 919,000 | 947,000 | |
| 104 | | | | Construct BPS 129 | | | | | | 1,518,000 | | | | |
| 105 | | | Project Total | | - | - | - | 56,000 | 121,000 | 1,609,000 | 919,000 | 947,000 | - | |
| 106 | | | | | | | | | | | | | | |



Madison Water Utility - 2014 Capital Budget
2014-2020 Capital Improvement Budget

DRAFT

Updated: **May 20, 2013**

| | | | | Annual Totals | | | | | | | | | | | | |
|------|--|--------------------------|---------------------------|--|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|-----------|-----------|---------|
| | | | | \$ 20,276,000 | \$ 11,430,000 | \$ 26,926,000 | \$ 27,322,000 | \$ 25,092,000 | \$ 25,473,000 | \$ 28,811,000 | \$ 29,235,000 | \$ 31,868,600 | | | | |
| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | |
| 107 | East Side Replacement Well (Well 3) | | 2018 | | | | | | | | | | | | | |
| 108 | Utility Well #3 was abandoned in early 2008 due to elevated levels of Carbon Tetrachloride. This project is intended to replace that lost supply capacity in Pressure Zone 6E. The need for a replacement well was verified by the East Side Water Supply project. The East Isthmus Unit Well will restore lost supply redundancy and reliability to the east Isthmus area. It is expected that the well will need a filter for iron and manganese removal and this is included in the budget for the project. There is also a possibility that VOC contamination will be present due to long term industrial land use on the Isthmus. The treatment plant will be designed with the intention of adding treatment if necessary. If the test well indicates that iron and manganese filtration is not needed, the capital cost will be significantly reduced. | | | Public Participation | | 15,000 | 15,000 | | | 20,000 | | | | | | |
| 109 | | | | Drill test well and WQ analysis | | | 150,000 | | | | | | | | | |
| 110 | | | | Property Purchase | | 250,000 | | | | | | | | | | |
| 111 | | | | Drill new E. Isthmus Well | | | | | | | | 636,000 | | | | |
| 112 | | | | Consultant Design contract | | | | | 50,000 | | | 468,000 | | | | |
| 113 | | | | Construction of Filter, Res & Pump Station | | | | | | | | | | 6,244,000 | | |
| 114 | | | | Pipeline Improvements | | | | | | | | | | | 1,071,000 | 736,000 |
| 115 | | | | Construction Administration | | | | | | | | | | 250,000 | | |
| 116 | Project Total | | | | - | 265,000 | 215,000 | - | - | 1,124,000 | 6,494,000 | 1,071,000 | 736,000 | | | |
| 117 | | | | | | | | | | | | | | | | |
| 118 | Booster Pump Station/PRV 124 Construction | | 2018 | | | | | | | | | | | | | |
| 119 | Construction of a new booster pump station 124 to transfer water across the Yahara River and provide operational flexibility to the system. Pump Station 124 will transfer water from Zone 6W to Zone 6E and back again through a PRV. This operation will benefit customers through gained reliability and flexibility of operations. The pump station will allow the transfer of water from multiple wells if needed during a water shortage or equipment maintenance period. | | | Public Engagement | | | | | 58,000 | | | | | | | |
| 120 | | | | Design | | | | | | | 126,000 | | | | | |
| 121 | | | | Construction Services | | | | | | | | | 95,000 | | | |
| 122 | | | | Water Main Improvements | | | | | | | | | | 947,000 | 975,000 | |
| 123 | | | | Construct BPS 129 | | | | | | | | | | 1,579,000 | | |
| 124 | Project Total | | | | - | - | - | - | 58,000 | 126,000 | 1,674,000 | 947,000 | 975,000 | | | |
| 125 | | | | | | | | | | | | | | | | |
| 126 | Zone 10 Far West Elevated Reservoir | | 2019 | | | | | | | | | | | | | |
| 127 | Construction of the Zone 10 Far West Side 750,000 gallon elevated reservoir is scheduled for 2020 and will follow a public engagement process and evaluation. The Zone 10 Far West Elevated Reservoir project will provide additional gravity fed water storage capacity within Pressure Zone 10. As Pressure Zone 10 has developed with not only residential but commercial and institutional facilities, the existing 250,000 gallon elevated tank on High Point Road no longer provides sufficient emergency reserve capacity. Providing minimum fire flow requirements to this area of the distribution system is necessary to meet minimum Utility standards. This project is identified in the 2006 Water Master Plan. | | | Public Engagement | | | | | | 60,000 | | | | | | |
| 128 | | | | Site Selection and Property Purchase | | | | | | | | | 438,000 | | | |
| 129 | | | | Consultant Design contract | | | | | | | | | 217,000 | | | |
| 130 | | | | Construction Services | | | | | | | | | | 190,000 | | |
| 131 | | | | Construct 750,000 gallon reservoir | | | | | | | | | | | 2,309,000 | |
| 132 | | | | Reservoir piping improvements | | | | | | | | | | | 406,000 | |
| 133 | | | | Water Main Improvements | | | | | | | | | | 812,000 | | |
| 134 | Project Total | | | | - | - | - | - | - | 60,000 | 655,000 | 3,717,000 | - | | | |
| 135 | | | | | | | | | | | | | | | | |
| 136 | Booster Pump Station 114 | | 2019 | | | | | | | | | | | | | |
| 137 | Booster Pump Station 114 will provide the ability to move water from Pressure Zone 6W to Zone 8 and back again. This improves the operational flexibility of the west side supply system and provides the means of spreading out the current water supply capacity within the system. Construction is scheduled to start in 2016 and be finished and in service by 2017. Construction of BPS 114 will benefit west side customers through gained system reliability and redundancy. | | | Public Engagement | | | | | | | 61,000 | | | | | |
| 138 | | | | Site Selection and Property Purchase | | | | | | | | | 438,000 | | | |
| 139 | | | | Consultant Design contract | | | | | | | | | 148,000 | | | |
| 140 | | | | Construction Services | | | | | | | | | | 99,000 | | |
| 141 | | | | Construct BPS 114 | | | | | | | | | | 1,642,000 | | |
| 142 | | | | Water Main Improvements | | | | | | | | | | 1,429,000 | 1,115,000 | |
| 143 | Project Total | | | | - | - | - | - | - | - | 647,000 | 3,170,000 | 1,115,000 | | | |
| 144 | | | | | | | | | | | | | | | | |



Madison Water Utility - 2014 Capital Budget
2014-2020 Capital Improvement Budget

DRAFT

Updated: **May 20, 2013**

| | | | | <i>Annual Totals</i> | \$ 20,276,000 | \$ 11,430,000 | \$ 26,926,000 | \$ 27,322,000 | \$ 25,092,000 | \$ 25,473,000 | \$ 28,811,000 | \$ 29,235,000 | \$ 31,868,600 | | |
|------|---|--------------------------|---------------------------|---|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------|-----------|
| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | |
| 145 | Northeast Side Supplemental Water Supply (American Family) | | 2020 | | | | | | | | | | | | |
| 146 | The 2006 Water Master Plan recommended an additional well on the east side that could provide water to Zones 6E and 3. The need for this well was verified during the system analysis completed for the East Side Water Supply project. The well would be tentatively located in the NE corner of the system and would provide water to Zones 3 and 6E. While no site has been identified at this point, the Utility owns property for this purpose on Hoepker Road. A public participation process is expected to be used to site the well and develop the details of this project. This project is scheduled to start construction in 2021 and be finished and in service by 2022. Continued development pressure on the east side and the need for reliability and redundancy in the NE corner of the water system is the focus of this project. | | | Public Engagement | | | | | | 60,000 | | | | | |
| 147 | | | | Property Purchase | | | | | | | | | 321,000 | | |
| 148 | | | | Drill test well | | | | | | | | | 151,000 | | |
| 149 | | | | Drill Production Well | | | | | | | | | | 762,000 | |
| 150 | | | | Consultant Design contract | | | | | | | | | | 584,000 | |
| 151 | | | | Construction of Unit Well, Filter, Reservoir and Pump Station | | | | | | | | | | | 7,305,000 |
| 152 | | | | Consultant Contract | | | | | | | | | | | 438,000 |
| 153 | | | | Administration | | | | | | | | | | | |
| 154 | | | | Pipelines | | | | | | | | | | | |
| 155 | | | | Project Total | | | | - | - | - | - | - | 60,000 | 472,000 | 1,346,000 |
| 156 | Unit Well No. 8 - Fe and Mn Filtration | | 2021 | | | | | | | | | | | | |
| 157 | <u>East Side Phase 2 - Unit Well No. 8 - Fe and Mn Mitigation</u> will address current water quality issues at Well 8 resulting from iron and manganese levels that exceed the EPA secondary standard's. Due to the colored water as a result of the iron and manganese, well operation is currently limited to summer only and a total production of approximately 100 million gallons per year. The need for this project was verified by the East Side Water Supply project and a public engagement process has started. Initially this project was scheduled for construction in 2013. Due to concerns about the nearby KIP Corporation contamination and neighborhood concerns about the facility in the park, the project has been delayed a year. A monitoring well will be installed in 2012 and additional data will be obtained regarding the KIP contamination. Installation of a filter would allow the well to be operational all year long and produce significantly greater quantities of water. Space will be included in the project for the future addition of an air stripper. The project will benefit existing customers in the east Isthmus area and improve the quality of the water pumped from Well 8. | | | Public Participation | | | | | | | | | 30,000 | | |
| 158 | | | | UW 8 - Filter Design Documents | | | | | | | | | | | 541,600 |
| 159 | | | | Property Acquisition | | | | | | | | | | | 500,000 |
| 160 | | | | Construction Admin Services | | | | | | | | | | | |
| 161 | | | | Well 8 Fe and Mn Filter Construction | | | | | | | | | | | |
| 162 | | | | Hydraulic Improvement Pipelines | | | | | | | | | | | |
| 163 | | | | Project Total | | | | - | - | - | - | - | - | - | - |
| 164 | | | | | | | | | | | | | | | |
| 165 | Zone 11 Blackhawk Elevated Reservoir | | 2021 | | | | | | | | | | | | |
| 166 | No storage capacity currently exists in Pressure Zone 11 on the far west side of the distribution system. The area is fed by a dedicated booster pump station (BPS 128). As the area develops and fills in, construction of the Blackhawk Elevated Reservoir will provide the needed emergency supply storage and fire fighting capacity recommended for the area. The reservoir is scheduled for construction in 2015 and will be in operation in 2017. The <u>Blackhawk Elevated Reservoir</u> project will upgrade the service to Pressure Zone 11 from pumped to gravity. The Utility currently owns property on the far west side for the purpose of siting a water reservoir. | | | Public Engagement | | | | | | | | 63,000 | | | |
| 167 | | | | Consultant Design contract | | | | | | | | | | | 234,000 |
| 168 | | | | Construction Services | | | | | | | | | | | |
| 169 | | | | Construct 750,000 gallon reservoir | | | | | | | | | | | |
| 170 | | | | Reservoir piping improvements | | | | | | | | | | | |
| 171 | Water Main Improvements | | | | | | | | | | | | | | |
| 172 | Project Total | | | | - | - | - | - | - | - | - | 63,000 | 234,000 | | |
| 173 | | | | | | | | | | | | | | | |
| 174 | Pressure Zone 9 Storage | | 2022 | | | | | | | | | | | | |
| 175 | Storage capacity within Pressure Zone 9 was identified in the Water Master Plan as being deficient. With the replacement of the elevated reservoir on Prairie Road in 2011 and 2012 with a 400,000 gallon tank, this situation was partially mitigated. A second reservoir with a capacity of 750,000 gallons will resolve the remainder of the Zone 9 storage deficiency. An elevated reservoir in the western portion of Zone 9 will provide hydraulic balance to the system. Construction of the proposed reservoir is scheduled to start in 2016 and be complete and in operation by 2017. Pressure Zone 9 has developed significantly with not only residential but commercial and institutional facilities. The fire flow requirements have increased due to this development to the point that current facilities do not meet minimum standards. | | | Public Engagement | | | | | | | | | 65,000 | | |
| 176 | | | | Reservoir Property Purchase | | | | | | | | | | | |
| 177 | | | | Consultant Design Services | | | | | | | | | | | |
| 178 | | | | Construct 750,000 gallon elevated reservoir | | | | | | | | | | | |
| 179 | | | | Construction Contract Administration | | | | | | | | | | | |
| 180 | Reservoir Pipeline Construction | | | | | | | | | | | | | | |
| 181 | Project Total | | | | - | - | - | - | - | - | - | - | 65,000 | | |
| 182 | | | | | | | | | | | | | | | |



Madison Water Utility - 2014 Capital Budget
2014-2020 Capital Improvement Budget

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Updated: **May 20, 2013**

Annual Totals \$ 20,276,000 \$ 11,430,000 \$ 26,926,000 \$ 27,322,000 \$ 25,092,000 \$ 25,473,000 \$ 28,811,000 \$ 29,235,000 \$ 31,868,600

| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | |
|------|---|--------------------------|---------------------------|--|------|----------------|------|------|------|------|------|---------------|----------------|--|
| 183 | Pump Station 220 - Raymond Road PS | | 2022 | | | | | | | | | | | |
| 184 | Construction of a booster pump station on the west side to move water between Zones 7, 9 and 10 and back again through a pressure reducing valve is scheduled to start in 2018 and be finished and in service by the end of the year. Booster Pump Station 220 - Raymond Road Pump Station will setup operational flexibility within Pressure Zones 7, 9 and 10. The station will transfer water from Zone 7 to Zones 9 and 10 and back again through a PRV. This operation will provide the ability to share water supply resources between zones and fully use existing facilities in providing operational flexibility. The project will also provide supply redundancy to the far west side. | | | Public Engagement | | | | | | | | | 65,000 | |
| 185 | | | | Dual Zone Pump Station Design | | | | | | | | | | |
| 186 | | | | Dual Zone Pump Station Construction | | | | | | | | | | |
| 187 | | | | PRV station | | | | | | | | | | |
| 188 | | | | Booster Station Piping Upgrade | | | | | | | | | | |
| 189 | | | | Project Total | - | - | - | - | - | - | - | - | 65,000 | |
| 190 | | | | | | | | | | | | | | |
| 191 | Near West Side Water Supply Project (Glenway) | | 2023 | | | | | | | | | | | |
| 192 | Construction of an additional well is scheduled for 2021. The Water Master Plan has identified this well project to mitigate a supply deficiency in Pressure Zones 6 and 7. The Near West Side Water Supply Project project will provide additional water supply capacity to both Zones 6 & 7. The final location of the proposed well will be determined following a significant public participation process and evaluation period. | | | Public Engagement | | | | | | | | 63,000 | | |
| 193 | | | | Site Selection and Property Purchase | | | | | | | | | 483,000 | |
| 194 | | | | Drill Test Well | | | | | | | | | 160,000 | |
| 195 | | | | Drill production Well | | | | | | | | | | |
| 196 | | | | Consultant Design contract for Unit Well, Reservoir and Pump Station | | | | | | | | | | |
| 197 | | | | Construction of Unit Well, Filter, Reservoir and Pump Station | | | | | | | | | | |
| 198 | | | | Construction Contract Administration | | | | | | | | | | |
| 199 | | | | Water Main Hydraulic Improvements | | | | | | | | | | |
| 200 | | | | Project Total | - | - | - | - | - | - | - | 63,000 | 643,000 | |
| 201 | | | | | | | | | | | | | | |
| 202 | Booster Pump Station 320 | | 2024 | | | | | | | | | | | |
| 203 | Booster Pump Station 320 will provide the Utility with operational flexibility on the west side. The station will transfer water from Zones 7 to Zones 9 and 10 and back again through a PRV. This operation will provide flexibility in source of supply to the west side of the system. It will benefit customers through gained system reliability. | | | Public Engagement | | | | | | | | | | |
| 204 | | | | Site Selection and Property Purchase | | | | | | | | | | |
| 205 | | | | Consultant Design contract | | | | | | | | | | |
| 206 | | | | Construction Services | | | | | | | | | | |
| 207 | | | | Construct BPS 320 | | | | | | | | | | |
| 208 | | | Water Main Improvements | | | | | | | | | | | |
| 209 | | | | Project Total | - | - | - | - | - | - | - | - | - | |



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| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------|---|--------------------------|---------------------------|---|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 210 | | | | | | | | | | | | | |
| 211 | | | | | | | | | | | | | |
| 212 | Pipeline Replacement/Rehab/Improvements | | Ongoing | Total Pipe Rehab Budget | 7,500,000 | 1,700,000 | 10,018,000 | 9,033,000 | 9,938,000 | 10,262,000 | 11,032,000 | 11,869,000 | 12,778,000 |
| 213 | Madison Water Utility has a planned system replacement and upgrade program that provides for annual main replacement and rehabilitation. Assessment of an aging infrastructure indicates the Utility needs to replace or rehabilitate over 400 miles of pipe in the next 40 years to renew and maintain the system. A planned annual increase in spending to accomplish this goal by 2050 will be continued. The Utility's Water Master Plan also recommends hydraulic improvements to the system. It is proposed to significantly increase pipeline investment for hydraulic needs in 2015 and then increase this budget over the next 15 years to meet Master Plan recommendations. | | | Reconstruction Pipe Projects | 3,500,000 | 750,000 | 3,000,000 | 3,950,000 | 4,108,000 | 4,272,000 | 4,443,000 | 4,621,000 | 4,806,000 |
| 214 | | | | Resurfacing Pipe Projects | 3,500,000 | 750,000 | 2,000,000 | 3,850,000 | 4,000,000 | 4,400,000 | 4,840,000 | 5,324,000 | 5,856,000 |
| 215 | | | | Pipe Lining Projects | 500,000 | 200,000 | 1,000,000 | 1,100,000 | 1,445,000 | 1,590,000 | 1,749,000 | 1,924,000 | 2,116,000 |
| 216 | | | | Verona Road Pipeline | | | 1,418,000 | 133,000 | 385,000 | | | | |
| 217 | | | | East Johnson | | | 2,600,000 | | | | | | |
| 218 | | | | New Pipeline Projects | 840,000 | 400,000 | 966,000 | 1,082,000 | 1,163,000 | 1,250,000 | 1,344,000 | 1,445,000 | 1,553,000 |
| 219 | | | | Master Plan Hydraulic Improvement Pipe Projects | | | | 713,000 | 799,000 | 895,000 | 1,002,000 | 1,122,000 | 1,257,000 |
| 220 | | | | Project Total | 8,340,000 | 2,100,000 | 10,984,000 | 10,828,000 | 11,900,000 | 12,407,000 | 13,378,000 | 14,436,000 | 15,588,000 |
| 221 | | | | | | | | | | | | | |
| 222 | | | | | | | | | | | | | |
| 223 | Misc. Pump Station/PRV/Facility Projects | | Ongoing | | | | | | | | | | |
| 224 | The Water Master Plan identified various minor improvement projects that are necessary to sustain the established level of service. For budgeting purposes, these projects are itemized under a single heading. Pressure Reducing stations will be constructed throughout the system as needed to reduce areas of excessive pressure. | | | PRV Station Gammon Rd Upgrade Booster Pumps @ UW 20 | 350,000 | 150,000 | 50,000 | | | | | | |
| 225 | | | | Upgrade Booster Pumps @ Res. 115 w/generator | | | 850,000 | | | | | | |
| 226 | | | | Water Main Improvements @ BPS 115 | | | 750,000 | | | | | | |
| 227 | | | | Generator @ UW 26 | 335,000 | 200,000 | | | | | | | |
| 228 | | | | PRV Projects 2 per year | | | 100,000 | 104,000 | 108,000 | 112,000 | 116,000 | 121,000 | 126,000 |
| 229 | | | | Misc. Projects | 100,000 | 50,000 | 500,000 | 525,000 | 1,000,000 | 1,050,000 | 1,103,000 | 1,158,000 | 1,216,000 |
| 230 | | | | Consultant Services | 24,000 | 24,000 | 270,000 | 75,000 | 133,000 | 139,000 | 146,000 | 153,000 | 161,000 |
| 231 | | | | Project Total | 809,000 | 424,000 | 2,520,000 | 704,000 | 1,241,000 | 1,301,000 | 1,365,000 | 1,432,000 | 1,503,000 |
| 232 | | | | | | | | | | | | | |



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| Line | Project | Date/Description/Purpose | Primary Construction Year | Tasks | 2013 | 2013 Carryover | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | |
|------|---|---|---------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--|-------------------|-------------------|--|
| 233 | | | | | | | | | | | | | | |
| 234 | System Wide Misc Projects | | Ongoing | | | | | | | | | | | |
| 235 | Several system wide tasks are included in the Capital Budget that cover a variety of repair, rehabilitation, and upgrade projects. The Utility's Infrastructure Management Plan recommends a reinvestment of \$2.5 (2005 dollars) in system facilities to sustain their viability for the long term. This would include Unit Well, pump station, and reservoir improvements and renewal. This budget proposes that an allotment for this purpose be started in 2014 and then increased annually to raise it to the recommended level. For budgeting purposes, these projects are itemized under a single heading. | West Side Water Master Plan | | 300,000 | 250,000 | | | | | | 365,000 | | | |
| 236 | | Update Infrastructure Plan | | 200,000 | 150,000 | | | | | | | 243,000 | | |
| 237 | | SCADA Maintenance and 6 Year Upgrade | | 33,000 | | | 76,000 | 78,000 | 250,000 | 263,000 | 40,000 | 40,000 | 42,000 | |
| 238 | | Flow Meter and VFD Retrofit | | | | | 125,000 | | | | | | | |
| 239 | | Meter Program | | | | | 180,000 | 187,000 | 194,000 | 202,000 | 210,000 | 218,000 | 227,000 | |
| 240 | | Private Well Connection Program | | 50,000 | 50,000 | 50,000 | 50,000 | | | | | | | |
| 241 | | Safety Additions to the Plant | | 29,000 | 29,000 | 31,000 | 33,000 | 35,000 | 37,000 | 39,000 | 41,000 | 43,000 | | |
| 242 | | Olin Admin Office Maintenance | | 18,000 | 18,000 | 19,000 | 70,000 | 51,000 | 55,000 | 59,000 | 63,000 | 143,000 | | |
| 243 | | Unit Well/PS/Reservoir Rehab/Maintenance | | 200,000 | 200,000 | 950,000 | 1,045,000 | 1,150,000 | 1,265,000 | 1,392,000 | 1,531,000 | 1,684,000 | | |
| 244 | | Well 24 Generator Connection | | | | 100,000 | | | | | | | | |
| 245 | | Generator emissions mods @ Wells 20 & 30 | | | | 100,000 | | | | | | | | |
| 246 | | Dump Site Purchase | | | | 125,000 | | | | | | | | |
| 247 | | General Consultant Services | | 67,000 | 67,000 | 74,000 | 81,000 | 89,000 | 98,000 | 108,000 | 113,000 | 119,000 | | |
| 248 | | Paterson Vehicle Storage Bldg Maintenance | | 34,000 | 34,000 | 50,000 | 54,000 | 58,000 | 62,000 | 67,000 | 72,000 | 77,000 | | |
| 249 | Paterson Office and Shop Maintenance | | 59,000 | 59,000 | | | 25,000 | 26,000 | 27,000 | 28,000 | 29,000 | | | |
| 250 | | Project Total | | | 990,000 | 857,000 | 1,880,000 | 1,598,000 | 1,852,000 | 2,008,000 | 2,550,000 | 2,106,000 | 2,364,000 | |
| 251 | | | | | | | | | | | | | | |
| 252 | | | | Total Estimated Annual Costs | 20,276,000 | 11,430,000 | 26,926,000 | 27,322,000 | 25,092,000 | 25,473,000 | 28,811,000 | 29,235,000 | 31,868,600 | |
| 253 | | | | Facility Reinvestment and Renewal Goal | | | 3.26 | | | | Facility Reinvestment and Renewal Goal | 3.89 | | |
| 254 | | | | Facility Reinvestment and Renewal Actual | | | 1.45 | | | | Facility Reinvestment and Renewal Actual | 2.10 | | |
| 255 | | | | | | | | | | | | | | |